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MCDONNELL BOEHNEN HULBERT & BERGHOFF LLP
300 S. WACKER DRIVE
32ND FLOOR
CHICAGO, IL 60606

EXAMINER	
KISHORE, GOLLAMUDI S	

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte TOM DE VRINGER and HINDERIKUS MARIUS MOLLEE

Appeal 2008-3113
Application 09/155,605
Technology Center 1600

Decided: September 29, 2008

Before RICHARD E. SCHAFER, SALLY G. LANE, and JAMES T. MOORE, *Administrative Patent Judges*.

MOORE, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF CASE

The Appellants appeal under 35 U.S.C. § 134 (2002) from a final rejection of claims 1-9, 12-17 and 19-37.[1] We have jurisdiction under 35 U.S.C. § 6(b) (2002).

We AFFIRM.

The Appellants' claims are directed to compositions and processes for of preparing compositions comprising instant vesicular products.

[1] Claims 10, 11, and 18 have been canceled.

Specifically, the claims describe powders of reversed vesicles, consisting essentially of non-ionic surfactants (Specification 1).

Vesicles are "single- or multi-layer shells of surfactants," and serve as the basic model for biological membranes. (Kunieda et al., "Formation and Structure of Reverse Vesicles," Rosoff, ed., *Vesicles*, pp. 79-103 (1996). Vesicles have an important function in a number of physiological processes, including endocytosis, exocytosis, and pinocytosis. (Kunieda et al., "Formation of Reversed Vesicles," J. Am. Chem. Soc., pp. 1051-1052 (1991). Vesicles have been widely employed in industrial processes, such as drug delivery. (Id.).

Vesicles produced in nonpolar media have been termed, reversed vesicles. (Kunieda et al., "Formation and Structure of Reverse Vesicles," Rosoff, ed., *Vesicles*, pp. 79-103 (1996). "Reverse vesicles consist of closed bimolecular layers with both the inside and outside being nonpolar liquid and are formed from a dispersion of a lamellar liquid crystalline phase in a nonpolar liquid." (Id. 80). Essentially, the hydrophilic heads and hydrophobic tails of the surfactant molecules comprising the vesicular structure are inverted or reversed.

When the powders of reversed vesicles are dispersed in an apolar pharmaceutically and cosmetically acceptable vehicle, the vesicles maintain their vesicular structure and exhibit high encapsulating capacity and high encapsulating efficiency. (Specification 1-2).

The Appellants do not argue any claims separately. Therefore, we select independent claims 1 and 9 to decide the appeal. See, 37 C.F.R. § 41.37(c)(1)(vii)(2006). Accordingly, the remaining claims stand or fall with claims 1 and 9.

Claims 1 and 9 read as follows:

> 1. A powder of reversed vesicles comprising one or more non-ionic surfactants,
>
> whereby when the powder is dispersed in a biodegradable oil the percent yield of reversed vesicles is greater than when the same amount of reversed vesicles is prepared directly in the biodegradable oil. (Paragraphing added)(See 37 CFR §1.75(i)).
>
> 9. A process for the preparation of a powder comprising one or more non-ionic surfactants, which process comprises
>
> making a dispersion of reversed vesicles from one or more non-ionic surfactants and
>
> optionally both a lipophilic stabilizing factor and a bioactive agent in an apolar vehicle,
>
> wherein as the apolar vehicle a volatile compound is selected which is subsequently removed by evaporation. (Paragraphing added).

(App. Br. 18, Claims Appendix).

Claim 1 recites a powder of reversed vesicles; Claim 9 recites a process of preparing that powder. Although not an issue in the present appeal, Claim 1 appears to require a higher concentration of reversed vesicles upon reconstitution as dispersion in oil than when the vesicles were originally prepared in oil.

THE EVIDENCE

The Examiner relies upon the following as evidence in support of the rejections:

Blinkovsky	US 5,693,516	Dec. 1997
Schneider	GB 2002 319	Feb. 1979
Lafon	EP 0159 237	Oct. 1985
De Vringer	EP 0521 562	Jan. 1993
Hiroshi	JP 05194253	Aug. 1993
Citernesi	EP 0678295	Oct. 1995

THE APPELLANTS' ADDITIONAL EVIDENCE

The Appellants additionally rely upon the following as evidence in support of their arguments:

Kunieda et al., "Formation and Structure of Reverse Vesicles," Rosoff, ed., *Vesicles*, pp. 79-103 (1996).

THE REJECTIONS

The following rejections are before us for review:

1. Claims 1-9, 12-17, and 19-37 stand rejected under 35 U.S.C. § 102(b) as being anticipated by De Vringer (EP 0521 562).

2. Claims 1-9, 12-17, and 19-37 stand rejected under 35 U.S.C. § 103(a) as being obvious over De Vringer by itself or in combination with Citernesi (EP 0678295), Lafon (EP 0159 237), Schneider (GB 2002 319), and Hiroshi (JP 05194253) by themselves or in combination.

3. Claims 1-9, 12-17, and 19-37 stand rejected under 35 U.S.C. § 103(a) as being obvious over De Vringer by itself or in combination with Blinkovsky (US 5,693,516).

FINDINGS OF FACT

The record supports the following findings of fact by a preponderance of the evidence.

1. De Vringer describes a composition and process for preparing

dispersions of vesicles in a non-polar phase comprising surfactants and a lipophilic stabilizing factor. (De Vringer 4:57-5:6; 9:34).

2. De Vringer describes that suitable surfactants are preferably non-ionic surfactants, such as sucrose fatty acid esters. (Id. at 8:57-9:1; 9:34-39).

3. De Vringer also describes that the non-polar phase can be formed from non-polar excipients, preferably volatile silicone oils. (Id. at 9:58-10:21).

4. According to De Vringer, the invention dispersions may be used in pharmaceutical, cosmetic, food and pesticide preparations. (Id. at 5:8-11).

5. De Vringer describes the removal of organic solvents by the rotational evaporation technique. (Id. at 12:7-22).

6. De Vringer describes that after obtaining a dispersion of vesicles an additional production step may be taken to remove the non-polar excipient(s) to obtain an instant preparation. (Id. at 12:46-56).

7. De Vringer therefore describes the formation of a powder of reversed vesicles. (FF6).

8. Citernesi describes a process for the preparation of a dispersion of a phospholipid/active principle complex (liposome vesicle) comprising the steps of dissolving the active principles into a solvent, addition of phospholipid to the solution, and removal of solvent. (Citernesi Abstract).

9. Citernesi describes preparing a powder by removing the solvent from the liposome vesicle complex medium through evaporation or vacuum distillation. (Citernesi 5:49-52).

10. Citernesi therefore describes the formation of a liposome vesicle containing an active component, and drying those vesicles into a powder. (FF 8, 9).

11. Lafon describes preparing a product "for oral administration of the solid oral emulsion type." (Lafon 1:1-3).

12. Lafon describes that the method is by lyophilization of an emulsion of the oil-in-water type. (Id. at 1:4-6).

13. Lafon describes that the method comprises introducing a liquid lipid phase into an aqueous phase to obtain a dispersion in the form of a homogeneous emulsion, distributing the resulting mixture into alveolar packs, freezing the contents of the packs, then lyophilizing the contents of the packs. (Id. at 7:17-24).

14. Lafon therefore describes that an emulsion can be freeze-dried to form a powder. (FF 11-13).

15. Hiroshi describes a release-sustained micro-powder that contains reverse micelles of water-soluble polypeptide hormone(s) and biodegradable polymer. (Hiroshi Title).

16. Hiroshi describes an example preparation of the micro-powder comprising dissolving erythropoietin in water and forming a reverse micelle solution, then centrifuging the solution to give solid micelles. (Hiroshi Abstract).

17. Hiroshi thus describes the formation of reverse structures (i.e., reverse micelles) into a powder. (FF 15-16).

18. Schneider describes a process for the dehydration of a colloidal dispersion of liposomes. (Schneider Title).

19. Schneider describes that the process involves preparing a mixture

of hydrophilic compound and liposome dispersion and then subjecting this mixture to a dehydration operation, i.e., freeze-drying, which leads to the formation of liposomes in the form of a stable powder from which liposomes can be reconstituted. (Schneider Abstract).

20. Schneider therefore discloses the formation of liposome vesicles into a powder. (FF 18-19).

21. Blinkovsky describes a method for solubilizing proteins in organic solvents. (Blinkovsky Title).

22. Blinkovsky describes a method for producing a protein composition that is soluble in organic solvents comprising mixing a protein with a surfactant and a water immiscible organic solvent to form a reverse micelle solution, then evaporating the resulting solution to dryness. (Blinkovsky Abstract).

23. Blinkovsky therefore describes forming reverse micelles into a powder. (FF 21-22).

PRINCIPLES OF LAW

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987).

"Under the principles of inherency, if the prior art necessarily functions in accordance with, or includes, the claimed limitations, it anticipates." *In re Cruciferous Sprout Litig.*, 301 F.3d 1343, 1349 (Fed. Cir. 2002).

It is well settled that a prior art reference that anticipates a claim under 35 U.S.C. § 102 (b) also renders the claim unpatentable under 35 U.S.C.

§ 103, as anticipation is the ultimate or epitome of obviousness. *In re Fracalossi*, 681 F.2d 792, 794 (CCPA 1982); *see also*, *Jones v. Hardy,* 727 F.2d 1524, 1529 (Fed. Cir. 1984).

"[W]hen the PTO shows sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not." *In re Spada*, 911 F.2d 705, 708, (Fed. Cir. 1990). "Where, as here, the claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes, the PTO can require an applicant to prove that the prior art products do not necessarily or inherently possess the characteristics of his claimed product." *In re Best,* 562 F.2d 1252, 1255 (CCPA 1977).

ANALYSIS

I. The Anticipation Rejection.

Claims 1-9, 12-17, and 19-37 stand rejected under 35 U.S.C. § 102 (b) as being anticipated by De Vringer.

Representative claims 1 and 9 recite,

> 1. A powder of reversed vesicles comprising one or more non-ionic surfactants, whereby when the powder is dispersed in a biodegradable oil the percent yield of reversed vesicles is greater than when the same amount of reversed vesicles is prepared directly in the biodegradable oil.
>
> 9. A process for the preparation of a powder comprising one or more non-ionic surfactants, which process comprises
> making a dispersion of reversed vesicles from one or more non-ionic surfactants and
> optionally both a lipophilic stabilizing factor and a bioactive agent
> in an apolar vehicle,

> wherein as the apolar vehicle a volatile compound is selected which is subsequently removed by evaporation. (Paragraphing added).

(App. Br. 18, Claims Appendix).

It is noted that claim 9 is the broadest claim, reciting a process comprising making a dispersion in an apolar vehicle, which apolar vehicle is a volatile compound removed by evaporation.

We turn to the Examiner's position.

The Examiner found that De Vringer describes instant (i.e. powdered) reversed vesicles containing a non-ionic surfactant, such as sucrose fatty acid esters, and a non-polar (apolar) vehicle of either silicone oil or isoparaffin. (Final Rejection, Apr. 16, 2007, p. 2).

The Examiner also found that De Vringer describes that the composition includes a lipophilic stabilizing factor, such as cholesterol, and an active agent. (Id.). According to the Examiner, De Vringer describes that the process for preparing the composition involves making a dispersion of reverse vesicles from the non-ionic surfactants and the active agent in a non-polar (apolar) vehicle and then removing this vehicle. (Id.) (citing De Vringer Abstract, 5:49-12:56, Examples, and Claims).

The Examiner found that De Vringer does not *explicitly* teach that the preparation is in the form of a powder, as recited in the Appellants' claims 1 and 9.

However, the Examiner also found that De Vringer describes removing the non-polar vehicle, e.g., volatile silicone oil, from the dispersion of reversed vesicles which inherently results in a powder formation. (Final Rejection, Apr. 16, 2007, p. 2) (citing De Vringer 12:55-

56). Additionally, the Examiner found that De Vringer expressly describes using the rotational evaporation method. (Id.).

We turn to the Appellants' first argument, concerning anticipation.

The Appellants first assert that the Examiner erred in rejecting claims 1-9, 12-17 and 19-37 as being anticipated by De Vringer alleging that De Vringer does not teach removing the non-polar excipient from the reversed vesicles composition in a manner that "would necessarily lead not merely to a powder, but to a powder of reversed vesicles having the properties recited in the present claims." (App. Br. 9-10).

In making this assertion, the Appellants argue "that the Office has not provided evidence or scientifically based reasoning that" a skilled artisan at the time of the invention who reviewed De Vringer would have known and employed a method of removing non-polar vehicles that would yield the claimed invention. (App. Br. 10; Reply Br. 2).

This argument is not persuasive.

We initially address our comments to claim 9, which is a method claim.

Claim 9 recites,

> 9. A process for the preparation of a powder comprising one or more non-ionic surfactants, which process comprises
> making a dispersion of reversed vesicles from one or more non-ionic surfactants and
> optionally both a lipophilic stabilizing factor and a bioactive agent in an apolar vehicle,
> wherein as the apolar vehicle a volatile compound is selected which is subsequently removed by evaporation. (Paragraphing added).

(App. Br. 18, Claims Appendix).

For purposes of deciding this appeal, we will accept the Appellants' contention that the preamble of the claim is limiting, and requires an end product in the form of a powder.

The Appellants challenge that De Vringer does not satisfy the limitation in this claim describing the powder. The Appellants urge that "not every method of removing the non-polar vehicle from the various dispersions of De Vringer will result in a powder as claimed." (App. Br. at 10). The Appellants, however, point to no evidence in support of this attorney argument.

Here, the Examiner found that De Vringer describes a composition and process for preparing a composition of a dispersion of reversed vesicles comprising non-ionic surfactants dispersed in a volatile silicone oil (a biodegradable oil) from which an instant preparation may be obtained by removing the non-polar excipients. (Final Rejection, Apr. 16, 2008, pp. 2-4).

These are the same method steps as are instantly claimed by the Appellants in claim 9.

With these findings, the Examiner provided a sound basis for believing that the prior art product, having the same components and prepared by the same method, is the same product claimed by the Applicants, and therefore inherently exhibits the same characteristics of the claimed product.

Consequently, it is the Appellants' burden to establish otherwise. *See In re Spada*, 911 F.2d 705, 708, (Fed. Cir. 1990) ("[W]hen the PTO shows sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not.");

see also In re Best, 562 F.2d 1252, 1255 (CCPA 1977) ("Where, as here, the claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes, the PTO can require an applicant to prove that the prior art products do not necessarily or inherently possess the characteristics of his claimed product.").

The Appellants have not persuasively satisfied this burden. The Appellants make a conclusory assertion that the properties of the resulting powder are dependent upon the method by which the non-polar excipients are removed and that "not every method of removing the non-polar vehicle from the various dispersions of De Vringer will result in a powder as presently claimed." (App. Br. 10).

In this argument, it is notable that the Appellants do not address the description of the reference, including De Vringer's rotational evaporation technique. Instead, the Appellants generally assert that known methods of producing powders of vesicles, micelles, or reverse micelles cannot be assumed to "be applicable to producing the presently claimed powder of reverse vesicles" due to differences in structure. (Id.).

These arguments are not persuasive and ignore the plain teaching of De Vringer. De Vringer expressly describes using the rotational evaporation method to remove organic solvents from a mixture of surfactants, lipophilic stabilizing factor, and if present, hydrophilic stabilizing factor. (De Vringer 12:2-8). This is the precise method of removing the apolar vehicle described in the Applicants' specification, and therefore there is a rational basis to conclude it will inherently result in the formation of a powder having the claimed properties.

Therefore, we find that the description of De Vringer anticipates the claimed subject matter, and the Appellants have not established error on the part of the Examiner in so finding.

In their Reply Brief, the Appellants assert that De Vringer discloses the rotational evaporative technique only as a means of evaporating *polar* organic solvents during the preparation of a dispersion of reversed vesicles in a non-polar medium. (Reply Br. 2). The Appellants make the surprising assertion that De Vringer "clearly states that the choice of the polar solvent is essential and among other things, should not mix with the non-polar phase." (Id. 3) (citing De Vringer 11:15-40). As a result, the Appellants conclude that De Vringer does not teach a method for removing the non-polar phase from a dispersion of reversed vesicles to obtain an instant product. (Id.).

This argument incorrectly depicts the description of De Vringer. De Vringer's discussion relating to a polar organic solvent relates to De Vringer's "evaporation method," described in column 11 at lines 15-58. There, De Vringer states:

> *The evaporation method* comprises the steps of:
> - dissolving the surfactant(s), the lipophilic stabilizing factor and, if present, the hydrophilic stabilizing factor, in a (mixture of) *polar organic solvent(s)*. . . .
> ...
> - preferably agitating the resulting mass and allowing the *polar organic solvent(s)* to evaporate, if necessary under reduced pressure. . . .

(De Vringer 11:15-28)(emphasis added).

The Appellants are silent as to how this description would fail to result in the claimed powders.

We also note that it is only *following* the recitation of this evaporation method for use with polar solvents that De Vringer makes the statement which is quoted out of context by the Appellants in their argument. De Vringer's discussion does not relate to the *rotational evaporation technique*.

Also contrary to the Appellants' assertion, De Vringer does not state that the solvents involved in this method cannot be mixed with the non-polar phase. Rather, De Vringer indicates that a suitable solvent is organic and "easy to remove by evaporation." (De Vringer 12:15-16). Consequently, the Appellants have not established that the Examiner erred in finding that De Vringer's rotational evaporation technique is inapplicable to remove non-polar excipients from De Vringer's dispersion of vesicles.

The Appellants next assert that "De Vringer merely recites a process that includes removing the non-polar vehicle from a dispersion of vesicles or polymerized vesicles to obtain an instant [i.e. powder] preparation ... [but] does not disclose the instant preparation itself." (App. Br. 10).

This argument is also unpersuasive.

The Examiner found that De Vringer describes both a composition and a process for preparing a composition of a dispersion of reverse vesicles comprising non-ionic surfactants dispersed in a volatile silicone oil (a biodegradable oil) from which an instant preparation may be obtained by removing the non-polar excipients. De Vringer expressly describes that "an instant preparation" may be obtained by removing the non-polar excipient(s) from the disclosed reverse vesicles composition. (De Vringer 12:55-56).

The Appellants have not established with persuasive evidence how this differs from the powder produced by the method steps of claim 9, or the composition of claim 1.

Consequently, we hold that the Appellants' have not established that the Examiner erred in rejecting the claimed compositions as being anticipated by De Vringer's instant preparation.

We next turn to the Appellants' second argument, regarding enablement of the De Vringer reference.

The Appellants next challenge the Examiner's anticipation rejection by asserting that De Vringer does not contain an enabling disclosure because "there is no teaching or even suggestion of how to. . . [remove the non-polar excipient], let alone a teaching of how to do it in a manner that would result in a powder of reversed vesicles." (App. Br. 10-11).

Here again, the Appellants assert that "[c]onventional techniques for removing a polar vehicle from vesicular systems cannot be applied without further experimentation in reversed vesicular systems." (Id. 11). The Appellants also assert that "the ordinary artisan would not know what would happen to the physical structure of the vesicles on removing the non-polar vehicle and would not know about the properties of the residue after removing the non-polar phase." (Id. 11).

This argument is also unpersuasive.

The Examiner found that De Vringer specifically described removing organic solvents using the rotational evaporation method and a skilled artisan would have recognized this method as an effective means to form an instant powder preparation. As discussed above, we see no error in this finding.

The Appellants not provided persuasive evidence that skilled artisans would *not* have applied the rotational evaporation method or conventional techniques for removing polar vehicles from vesicular systems to remove non-polar vehicles from reversed vesicular systems. Nor have the Appellants established with persuasive evidence that the ordinarily skilled artisan would have not have removed the non-polar vehicle, as expressly described by De Vringer, due to uncertainty regarding the structure or properties of the resulting preparation. We are provided only with attorney argument and speculation, which is not evidence.

Consequently, the Appellants have not established that the Examiner's rejection was in error.

Next, the Appellants challenge the Examiner's anticipation rejection by asserting that Examiner's cited references supporting the state of the art at the time of the invention do not fulfill any of the purposes set forth in MPEP 2131.01 for citing additional references in a 35 U.S.C. § 102 rejection.

Specifically, the Appellants assert that "the cited references relate to a completely different technology from that used in the presently claimed invention. . . [and] the teachings of these cited references cannot be applied to technology of the current invention." (App. Br. 11-12).

This argument is not persuasive as the Appellants' reliance on MPEP § 2131.01 is misplaced.

First, the Examiner relied upon the additional prior art for the purpose of establishing that methods for preparing a powder form of a substance, e.g. liposomes, capable of reconstitution was known in the art at the time of the invention. (Final Rejection, Apr. 16, 2007, p. 4, 7). Specifically, the

Examiner stated that the additional prior art describes that the "preparation of liposomal powders (reverse vesicles) which could be reconstituted into liposomes again upon the addition of a medium is known in the art. . . ." (Final Rejection, Apr. 16, 2007, p. 4).

Thus, the Examiner established that De Vringer's instruction to remove the non-polar excipients to obtain an instant preparation was enabled. As was found in *In re Samour*, 571 F.2d 559, 562-563 (CCPA 1978) (accord *In re Donohue*, 766 F.2d 531 (Fed. Cir. 1985), additional references relied upon to establish that the method of preparing the claimed subject matter disclosed in the primary prior art reference was known at the time of the invention is consistent with the requirements of with 35 U.S.C. § 102.

Second, the MPEP is not a source of binding authority on issues of patentability. (See MPEP foreword, "[t]he Manual does not have the force of law or the force of the rules in Title 37 of the Code of Federal Regulations.").

Consequently, we conclude that the Appellants have not established error on the part of the Examiner. Accordingly, we affirm the Examiner's anticipation rejections.

II. The Obviousness Rejections.

Claims 1-9, 12-17, and 19-37 also stand rejected under 35 U.S.C. § 103(a) as being obvious over De Vringer itself or in combination with Citernesi, Lafon, Schneider, and Hiroshi by themselves or in combination. Additionally, claims 1-9, 12-17, and 19-37 stand rejected under 35 U.S.C. § 103(a) as being obvious over De Vringer itself or in combination Blinkovsky.

The Appellants have addressed these obviousness rejections together as a group. Therefore, we also consider the rejections as a group.

In the finding the claims obvious, the Examiner found that De Vringer describes instant reverse vesicles containing sucrose fatty acid esters and an apolar vehicle of either silicone oil or isoparaffin. (Final Rejection, Apr. 16, 2007, p. 5). The Examiner also found that De Vringer describes that the compositions further contain a lipophilic stabilizing factor, a hydrophilic stabilizing factor and an active agent. (Id.).

Additionally, the Examiner found that De Vringer describes removing organic solvents using the rotational evaporation technique in preparation of a dispersion of vesicles and then describes that an instant preparation may be obtained by removing the non-polar excipients from the composition. (Id. 6).

The Examiner relied upon the teachings of Citernesi, Lafon, Schneider and Hiroshi for descriptions of the state of the art in the preparations of micelles, reverse micelles, emulsions, liposomes in powder form. (Final Rejection, Apr. 16, 2007, p. 6-7; Answer 9).

The Examiner found that the references establish that it would be obvious to a person of ordinary skill in the art at the time of the invention that removing the external medium in which vesicles are dispersed would result in a powder preparation. (Answer 6). The Examiner further found that a skilled artisan would be motivated to remove the external medium, such as volatile silicone oil, to prepare a powder because "powders are stable and can be stored for longer periods of time." (Id.)

In rejecting the claims over De Vringer in combination with Blinkovsky, the Examiner further found that Blinkovsky describes a process

for preparing a dried form of reverse micelles containing surfactants. (Final Rejection, Apr. 16, 2007, p. 8) (citing Blinkovsky Abstract; 1:66-3:53). The Examiner also found that Blinkovsky describes using rotoevaporation of the external medium to obtain the dried preparation of reverse micelles. (Id.) (citing Blinkovsky 6:19-23).

The Appellants challenge the Examiner's obviousness rejections by attacking the references separately (App. Br. 12-17) and asserting, "[n]either De Vringer nor the other cited art alone or in combination provide a reason to remove the non-polar excipient of De Vringer in a manner. . . that would result in the presently claimed powders, nor any teachings that would have made obtaining the presently claimed reverse vesicle powders predictable." (App. Br. 16-17.)

This argument is not persuasive. As discussed above, we have affirmed the rejections of claim 1-9, 12-17, and 19-37 as being anticipated by De Vringer. The Appellants have not shown how the subject matter of their claims defines over the rotational evaporation technique of DeVringer, let alone why it would not have been obvious to one of ordinary skill in the art to make a powder of reversed vesicles as described in DeVringer.

Consequently, the Appellant has not persuaded us that the Examiner erred in rejecting claims 1-9, 12-17, and 19-37 as being obvious over De Vringer itself.

Accordingly, we affirm the Examiner's rejections.

CONCLUSION OF LAW

On the record before us, the Appellants have not shown error on the part of the Examiner. It would have been obvious to one of ordinary skill in

the art at the time the invention was made to combine the known elements of the prior art for their known functions.

DECISION

1. The Rejection of claims 1-9, 12-17, and 19-37 under 35 U.S.C. §102(b) as being unpatentable over De Vringer is AFFIRMED.

2. The Rejection of claims 1-9, 12-17, and 19-37 under 35 U.S.C. § 103(a) as being obvious over De Vringer by itself is AFFIRMED.

3. The Rejection of claims 1-9, 12-17, and 19-37 under 35 U.S.C. § 103(a) as being obvious over De Vringer by itself is AFFIRMED.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv) (2006).

AFFIRMED

rvb

MCDONNELL BOEHNEN HULBERT & BERGHOFF LLP
300 S. Wacker Drive
32nd Floor
Chicago, IL 60606